<雑録>鐵鋼製錬反應に關聯する電氣化學的研究の文獻集

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鐵鋼製錬反應に關聯する電氣化學的研究の文獻集

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鐵鋼製錬反應の物理化學的研究の歷史は比較的新しく今世紀初頭以降に屬するが，幾多の研究者による輝かしい成果は從來經驗にのみ依存していた製錬作業に科學的いぶきをあたえ，學術的に體系づけた功績は特筆すべきものである．

しかしこれら研究はいずれも熔融鑛滓は電氣的に中性な化合物並びにその集合と見做し所謂分子論的觀點に立つて製錬反應を取扱つており，今日一般的通念となつているとは云へミクロ的な事實に忠實でない憾がある．然るにこゝ十數年來ガラスの研究に端を發し，熔融鹽に關する電氣化學的研究の成果は金屬製錬の鑛滓も高度にイオン化していることが漸次實證され，熔滓のイオン性に立脚して熔滓の構成，熔滓，熔鐵の構成成分の活量決定，ひいては基礎反應の解明等の研究が活潑に實施されつゝあるが，未だ日が淺くまた實驗の困難性等のため，その緒についたに過ぎず全般的に體系化されるには到つていないが，前述の分子論的觀點よりも現象の把握により忠實であることは疑ふ餘地がなく，今後發展が期待されるところである．

本稿は鐵鋼製錬を對象とする電氣化學的研究をふり返えり，これに關聯する文獻を分類整理したもので頁數の都合上內容の紹介は差控えたが，この方面に關心のある諸士の他山の石ともなり，また今後の研究の一里塚ともなれば望外の幸である．

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